

Bear Run One-Hour BAM PM₁₀ Data Processing Explanation Document

<u>Item</u>	<u>Description</u>
985	Missing data highlighted in gray. A "985" value usually indicates maintenance or calibrations were being performed.
Negative Concentration	Highlighted in gray. Negative hourly PM ₁₀ concentrations were changed to zero when calculating 24-hour PM ₁₀ concentrations (conservative approach). Note, this is contrary to how the manufacturer recommends treating the data which is to <i>not</i> adjust the data and include negative hourly concentration values as-is when calculating 24-hour PM ₁₀ concentrations.
Short-term high "spike" concentration	<p>There are several one-hour spikes that may or may not be real. Again to be conservative and measure the worst case scenario, these short-term value spikes were included in calculating 24-hour PM₁₀ concentrations. Based on conversations with the manufacturer, it is believed that some of the one-hour spikes in concentration are due to one or more of the following and may be invalid.</p> <ul style="list-style-type: none">A. Condensation in the inlet tube, resulting in drops of water falling on the filter.B. Insect(s) on the filter tape.C. A "clump" of dirt falling off the inlet tube onto the filter tape.D. Filter tape debris left behind from the filter moving forward hourly.E. Galling of the aluminum inlet on the aluminum inlet tube sometimes produces aluminum particles which fall on the filter tape.